

What is claimed is:

- 1 1. A method comprising:
- 2 defining a process including at least one transaction;
- 3 storing a representation of the at least one transaction in a process-container;
- 4 transmitting the process-container to at least one remote entity;
- 5 receiving the process-container from the at least one remote entity; and
- 6 displaying contents of the process-container.

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1 2. A method comprising:

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defining a process including at least one transaction;

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storing a representation of the at least one transaction in a process-container;

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transmitting the process-container to at least one remote entity; and

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updating the process-container on the at least one remote entity.

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3. The method of claim 2 further comprising:

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receiving the process-container from the at least one remote entity.

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4. The method of claim 2 further comprising:

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displaying contents of the process-container.

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5. A method comprising:

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defining a process including at least one transaction;

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storing the at least one transaction in a process-container;

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transmitting the process-container to at least one remote entity; and

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interacting with the process-container on the at least one remote entity.

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6. The method of claim 5 further comprising:

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receiving the process-container from the at least one remote entity.

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7. The method of claim 5 further comprising:

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displaying the contents of the process-container.

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8. A process-container comprising:

a logic module;

a storage module communicatively coupled to the logic module; and

an interface module communicatively coupled to the logic module.

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1 9. A process-container comprising:

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a logic module;

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a storage module in communication with the logic module; and

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an interface module in communication with the logic module.

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1 10. A process-container comprising:

2 a presentation module;

3 a logic module coupled to the presentation module; and

4 a data module coupled to the presentation module.

1 11. The process-container of claim 10 further comprising a journal module coupled to the

2 presentation module.

1 12. The process-container of claim 10 wherein the logic is coupled to the data module.

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1 13. A process-container comprising:

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a data module;

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a logic module coupled to the data module; and

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a presentation module coupled to the data module.

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14. The process-container of claim 13 further comprising a journal module coupled to the data

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module.

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15. The process-container of claim 14 wherein the logic is coupled to the journal module.

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1 16. A process-container comprising:

2 at least one binder;

3 at least one attachment coupled to the at least one binder; and

4 at least one transaction coupled to the at least one binder.

1 17. The process-container of claim 16 further comprising a journal coupled to the at least one
2 binder.

1 18. The process-container of claim 17 wherein the journal includes at least one mutation.

1 19. The process-container of claim 17 wherein the journal includes a plurality of mutations
2 grouped into at least one cycle.

1 20. The process-container of claim 16 further comprising an identifier coupled to the at least one
2 binder.

1 21. The process-container of claim 16 further comprising a shell annotation coupled to the at
2 least one binder.

1 22. The process-container of claim 16 wherein the at least one binder includes at least one
2 resource.

1 23. The process-container of claim 22 wherein the at least one resource includes at least one of
2 an opaque resource, an object resource, a meta-data resource, and a data resource.

1 24. The process-container of claim 22 wherein the at least one resource includes a virtual
2 uniform resource locator (VURL).

1 25. The process-container of claim 16 wherein the at least one attachment includes at least one
2 multipurpose internet mail extension (MIME) bytestream.

1 26. The process-container of claim 25 wherein the at least one MIME bytestream includes at
2 least one application document.

1 27. The process-container of claim 16 wherein the at least one attachment includes at least one
2 application document.

- 1 28. The process-container of claim 16 wherein the at least one transaction includes at least one
2 resource.
- 1 29. The process-container of claim 28 wherein the at least one resource includes at least one
2 extensible markup language (XML) document.
- 1 30. The process-container of claim 29 wherein the at least one XML document is compliant to an
2 external document type definition (DTD).
- 1 31. The process-container of claim 16 wherein the at least one transaction includes at least one
2 data processing instruction.
- 1 32. The process-container of claim 16 wherein the process-container is operable to be executed
2 on a peer.
- 1 33. The process-container of claim 16 wherein the process-container is operable to be
2 transmitted between a plurality of peers.
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a runtime support environment including

an engine wherein the engine includes at least one of means for object mapping,

means for persistence, means for journaling, means for querying, means for schema validation,

means for compounding documents, and means for synchronizing documents.

- 1 35. A peer for executing a process-container comprising:
2 a runtime support environment including
3 an engine;
4 an extension application program interface (API) coupled to the engine; and
5 at least one process-container extension coupled to the extension API.
- 1 36. The peer of claim 35 wherein the at least one process-container extension includes at least
2 one of a gateway extension, a workflow extension, a rules extension, a protocol extension, and a
3 transport extension.
- 1 37. The peer of claim 35 wherein the virtual machine includes a Java virtual machine.
- 1 38. The peer of claim 35 wherein the engine includes
2 a support module;
3 a runtime module coupled to the support module;
4 a core module coupled to the runtime module; and
5 a process-container module coupled to the core module.
- 1 39. The peer of claim 38 wherein the engine further includes at least one API.
- 1 40. The peer of claim 39 wherein the at least one API includes at least one of an extension API,
2 a JavaScript API, and a XML component language (XCL) API.
- 1 41. The peer of claim 38 wherein the support module includes at least one of an interpreter
2 package, a language parser package, a extensible stylesheet language transformation (XSLT)
3 processor, a XML path language processor (XPath), a servlet package, a naming interface
4 package, a directory interface package, a message service package, a mail package, and an
5 activation framework package.
- 1 42. The peer of claim 38 wherein the runtime module includes at least one of a persistent store
2 subsystem, a process-container session subsystem, a verb protocol subsystem, a process-
3 container event interface, a process-container packet interface, a process-container attachment
4 interface, a process-container email interface, a process-container message interface, and a
5 process-container service interface.
- 1 43. The peer of claim 38 wherein the core module includes at least one of means for object
2 mapping, means for persistence, means for journaling, means for querying, means for schema
3 validation, means for compounding documents, and means for synchronizing documents.

- 1 44. The peer of claim 38 wherein the process-container module includes at least one process-
2 container.
- 1 45. The peer of claim 38 wherein the process-container module includes at least one of a binder,
2 an attachment, a transaction, and a journal.
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1 46. A system for automating a process comprising:
2 at least one process-container; and
3 at least one peer;
4 wherein the at least one process-container includes data and instructions relevant to a
5 process and wherein the at least one peer is operable to execute the instructions, transmit the
6 process-container, and receive the process-container.
- 1 47. The system of claim 46 wherein the at least one process-container is mobile.
- 1 48. The system of claim 46 wherein the at least one process-container is self-contained.
- 1 49. The system of claim 48 wherein the at least one process-container is self-contained wherein
2 the peer is operable to execute the process-container without reference to other resources.
- 1 50. The system of claim 48 wherein the at least one process-container is self-contained wherein
2 the peer is operable to execute the process-container off-line.
- 1 51. The system of claim 46 wherein the at least one process-container is asynchronous.
- 1 52. The system of claim 46 wherein the at least one process-container is executable.
- 1 53. The system of claim 46 wherein the at least one process-container is visualizable.
- 1 54. The system of claim 53 wherein the at least one process-container is visualizable as a web
2 site.
- 1 55. The system of claim 46 wherein the at least one process-container is an agent.
- 1 56. The system of claim 46 wherein the at least one process-container is operable to provide a
2 communication link to a peer on a remote system.
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1 57. A device, comprising:

2 a processor; and

3 a storage device coupled to said processor and storing instructions adapted to be
4 executed by said processor to:

5 define a process including at least one transaction;

6 store a representation of the at least one transaction in a process-container;

7 transmit the process-container to at least one remote entity;

8 receive the process-container from the at least one remote entity; and

9 display contents of the process-container.

1 58. A medium storing instructions adapted to be executed by a processor to perform a method
2 of collaborating, said method comprising:

3 defining a process including at least one transaction;

4 storing a representation of the at least one transaction in a process-container;

5 transmitting the process-container to at least one remote entity;

6 receiving the process-container from the at least one remote entity; and

7 displaying contents of the process-container.

1 59. A medium transmitting instructions adapted to be executed by a processor to perform a
2 method of collaborating, said method comprising:

3 defining a process including at least one transaction;

4 storing a representation of the at least one transaction in a process-container;

5 transmitting the process-container to at least one remote entity;

6 receiving the process-container from the at least one remote entity; and

7 displaying contents of the process-container.
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1 60. A computer-readable medium that stores program code and data accessible by and
2 executable by a processor in a data processing system, the program code and data including:
3 a first module operable to define a process including at least one transaction;
4 a second module operable to store a representation of the at least one transaction in a
5 process-container;
6 a third module operable to transmit the process-container to at least one remote entity;
7 a fourth module operable to receive the process-container from the at least one remote
8 entity; and
9 a fifth module operable to display contents of the process-container.

1 61. A system for collaborating comprising:
2 means for defining a process including at least one transaction;
3 means for storing a representation of the at least one transaction in a process-container;
4 means for transmitting the process-container to at least one remote entity;
5 means for receiving the process-container from the at least one remote entity; and
6 means for displaying contents of the process-container.

1 62. A system for process automation comprising:
2 means for defining a process including at least one task;
3 means for storing a representation of the at least one task in a process-container;
4 means for transmitting the process-container to at least one remote entity;
5 means for performing the at least one task on the at least one remote entity; and
6 means for updating the process-container based on performance of the at least one task.

1 63. The system of claim 62 further comprising:
2 means for receiving the process-container from the at least one remote entity; and
3 means for displaying contents of the process-container.